

Notice of Allowability

Application No.

09/919,260

Applicant(s)

SOLER ET AL.

Examiner

Art Unit

Charlotte M. Baker

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 05/12/2005.
2. ☒ The allowed claim(s) is/are 1-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Peter I. Lippman (22,835) on September 16, 2005.
3. The application has been amended as follows:
On p. 1, "Related Patent Documents", replace with --Related documents include other, coowned U. S. utility-patent documents hereby incorporated by reference in their entirety into this document. One is in the names of Francesc Subirada et al. and filed, very generally concurrently with the present document, under attorney docket code 60990045Z142 – and later assigned application serial 09/919,207. Another is in the names of Thomas Baker et al. and is application serial 09/183,819, later issued as U. S. 6,832,824. Yet another is in the name of Antoni Gil Miquel, serial 09/642,417.

Inventorship

4. In view of the papers filed 05/12/2005, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a)(1). The inventorship of this application has been changed to the following:

Pau Soler

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Roger Vinas

Francisco Javier Rodriguez and

Francesc Subirada.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

Response to Arguments

5. Applicant's arguments, see (pp. 6-8, "Section 103 rejections"), filed 05/12/2005, with respect to 35 USC § 103 have been fully considered and are persuasive. The 35 USC § 103 rejections of claims 1-19 have been withdrawn.

6. Applicant's arguments, see (pp. 4-6, "Section 112 rejections), filed 05/12/2005, with respect to 35 U.S.C. 112, first paragraph rejections have been fully considered and are persuasive. The 35 U.S.C. 112, first paragraph rejections of claims 20-40 have been withdrawn.

Allowable Subject Matter

7. Claims 1-40 are allowed.

8. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach the claimed subject matter of claim 1; therefore, claim 1 is allowable for the reasons pointed out by Applicant's remarks (see p. 7, "Misunderstandings").

9. It follows that claims 2-19 are then inherently allowable for depending on an allowable base claim.

10. The following is an examiner's statement of reasons for allowance: claims 20-40 are allowed over the prior art of record because the Examiner found neither prior art cited in its

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entirety, nor based on the prior art, found any motivation to combine any of said prior art which teaches

11. means for interpreting measurement signals from the sensor, to correct the sensor output signals for drift due to incomplete warmup;

said interpreting means comprising processor portions for:

isolating measurement-signal segments representing the at least one are to establish a tonal-reference calibration level, and

applying the calibration level to correct the measurement signals due to the measured illuminated colors.

12. Takahashi (US 2003/0016263) discloses a printing apparatus and a method for performing printing registration. In addition, an optical sensor is disclosed for reading and is located in such a position to provide stability of reading. Takahashi fails to specifically address the invention as claimed.

13. Yamaguchi (6,788,431) discloses printing a patch image and generation of a correction value. Also, the image data is corrected in accordance with the correction value. Yamaguchi fail to specifically address the invention as claimed.

14. Bhattacharajya (5,809,213) discloses a method and apparatus for automatic color correction. Bhattacharajya fails to specifically address the invention as claimed.

15. The following is an examiner's statement of reasons for allowance: claims 20-40 are allowed over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of said prior art which teaches

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16. plural light-emitting diodes for scanning across the test pattern and the at least one reference area to illuminate the pattern and the at least one area, temperature dependence in the diodes leading to drift of illumination level during warmup,

a sensor for scanning across the pattern and the at least one area, with the diodes, to measure illuminated colors in the test pattern and to measure the at least one reference area, whereby the illumination drift leads to drift of measurement signals from the sensor,

an analog-to-digital converter for receiving the measurement signals, nonlinearities in the converting making measurements of small signal differences on a large signal pedestal undesirable, wherefore the diodes are used in alternation rather than continuously, and therefore never fully completely warmup, and

means for compensating for incomplete diode warmup;

said compensating means comprising portions of the processor for interpreting output signals from the converter, to correct the converter output signals for drift due to said incomplete warmup;

said interpreting portions comprising processor portions for:

isolating converter-signal segments representing tonal-reference calibration level, and applying the tonal-reference calibration-level segments to correct the measurement signals due to the measured illuminated colors;

whereby the apparatus accommodates the printhead tolerances and diode temperature dependence, and avoids the converter nonlinearities.

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17. Takahashi (US 2003/0016263) discloses a printing apparatus and a method for performing printing registration. In addition, a print head and a plurality of print heads are taught. Takahashi fails to specifically address the invention as claimed.

18. Yamaguchi (6,788,431) discloses printing a patch image and generation of a correction value. In addition, controlling the temperature of the heat drum is taught. Yamaguchi fail to specifically address the invention as claimed.

19. Bhattacharajya (5,809,213) discloses a method and apparatus for automatic color correction. In addition, a lookup table with calibration values stored within. Bhattacharajya fail to specifically address the invention as claimed.

20. The following is an examiner's statement of reasons for allowance: claims 20-40 are allowed over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of said prior art which teaches

guide means establishing a spacing between such printing medium and at least a portion of the sensor; said guide means being subject to tolerances that lead to nonuniformity of the spacing, at the scan positions, means for interpreting measurement signals from the sensor, to correct the sensor output signals for variation due to said nonuniformity of the spacing; said interpreting means comprising processor portions for: also scanning the sensor across an unprinted region of the medium to obtain respective unprinted-medium tonal-reference calibration levels for the scan positions, isolating measurement-signal segments representing the tonal-reference calibration levels for the scan positions, and applying the isolated signal segments to correct the measurement signals due to the measured illuminated colors.

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21. Takahashi (US 2003/0016263) discloses locating an optical sensor at a position where signal to noise ration is stable with respect to fluctuations in distance from the object to be read.

Takahashi fails to specifically address the invention as claimed.

22. Yamaguchi (6,788,431) discloses printing a patch image and generation of a correction value. Also, the image data is corrected in accordance with the correction value. Yamaguchi fail to specifically address the invention as claimed.

23. Bhattacharajya (5,809,213) discloses a method and apparatus for automatic color correction. In addition, a lookup table with calibration values stored within. Bhattacharajya fail to specifically address the invention as claimed.

24. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is (571)272-7459.

The examiner can normally be reached on Monday-Friday 8:30-5:00.

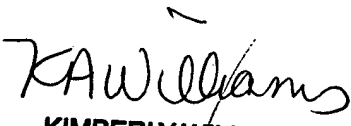
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on (571)272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent.

Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CMB


KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER